

Farm Employment Losses Outstrip Job Gains in Farm-Related Industries in Some Nonmetro Areas

Farm jobs have declined during the past 20 years, and jobs closely related to farming have shown little growth. At the same time, the number of agriculturally related jobs away from the farm has increased, but not as fast as farm employment losses in some States.

Employment on farms—including farm proprietors and wage and salary farmworkers—in nonmetro counties diminished by almost 667,000 jobs (26.9 percent) during 1975-96 (table 1). Farm consolidation and technological changes that substitute capital for labor in farming explain much of the decline. These factors, coupled with periods of unfavorable agricultural economic conditions, caused all regions to lose nonmetro farm jobs. The Southeast and Delta regions lost the most farm employment (about 40 percent), while the Pacific, Southern Plains, and Mountain regions had relatively modest declines (from 3 to 12 percent).

As the number of farm proprietors and wage and salary farmworkers declined, employment changes were mixed in industries closely related to farming (table 2). The agricultural services, forestry, and fisheries sector in nonmetro counties gained more than 100,000 jobs (mostly in veterinary and crop services), but these gains were offset by an almost equal number of jobs lost by nonmetro industries that process and market agricultural goods after they leave the farm. Processing and marketing employment was negatively affected by mergers and acquisitions in the industry and the replacement or retooling of labor-intensive plants to rely on more automated machinery. Employment also declined in agricultural input industries, such as farm machinery manufacturers and suppliers, which lost 28,000 jobs in nonmetro counties.

Rural jobs increased the most in industries weakly linked to farming (table 2). The largest segment of these peripherally related industries—wholesale and retail trade of agricultural products, such as grocery stores and restaurants—increased by more than 1.3 million jobs (94.7 percent). Job growth in wholesale and retail trade industries is principally linked to growth in population and income. Increased personal income has changed consumer behavior, with more prepared foods being purchased at retail outlets or eaten outside the home. Compared with wholesale and retail trade, indirect agribusiness, like chemical and fertilizer mining and food products machinery manufacturing, gained only about 36,000 jobs in nonmetro areas (34.5 percent).

Table 1

Change in nonmetro farm employment, 1975-96¹

Farm employment fell in nonmetro areas of all regions

Region	1975		1996		Change, 1975-96	
	Number of jobs		Number of jobs		Number of jobs	Percent
U.S. nonmetro	2,475,218		1,808,435		-666,783	-26.9
Appalachia	371,992		256,875		-115,117	-30.9
Corn Belt	530,017		360,091		-169,926	-32.1
Delta States	197,261		121,786		-75,475	-38.3
Lake States	260,728		187,634		-73,094	-28.0
Mountain	146,914		128,374		-18,540	-12.6
Northeast	109,318		80,751		-28,567	-26.1
Northern Plains	272,140		203,236		-68,904	-25.3
Pacific	106,648		102,787		-3,861	-3.6
Southeast	203,240		115,372		-87,868	-43.2
Southern Plains	265,233		242,046		-23,187	-8.7

Note: Detail may not add to total because of data unclassified by metro/nonmetro county.

¹Nonmetro farm employment includes farm proprietors and wage and salary farmworkers.

Source: Calculated by ERS using Department of Commerce data.

Table 2

Change in employment in nonmetro farm and farm-related industries, 1975-96*Most nonmetro farm-related job gains are in agricultural wholesale and retail trade*

Industry	1975		1996		Change, 1975-96	
	—————Number of jobs—————				Number of jobs	Percent
Farming	2,475,218		1,808,435		-666,783	-26.9
Forestry, fisheries, and agricultural services	88,521		189,409		100,888	114.0
Agricultural inputs	239,601		211,518		-28,083	-11.7
Processing and marketing	1,202,916		1,102,737		-100,179	-8.3
Wholesale and retail trade	1,384,196		2,694,762		1,310,566	94.7
Indirect agribusiness	104,068		140,045		35,977	34.5

Source: Calculated by ERS using U.S. Department of Commerce data.

Farming and Its Closely Related Jobs Are Not Easily Replaced

Trends in farm and farm-related employment indicate that, nationally, nonmetro areas gained less than two jobs in industries peripheral to agriculture for each job lost in farming and its closely related industries (table 3). More striking is the low ratio of peripheral farm-related job gains to farm job losses in some States where farm production comprised a high percentage of total nonmetro employment. North Dakota, South Dakota, and Iowa, where farm production jobs comprised 20 to 26 percent of total nonmetro employment, had a job gain/loss ratio of less than one. In these States, the agricultural sector, including industries only weakly linked to farming, could not create new jobs at a pace equal to the large decline in farm jobs. Other States with low ratios, such as Missouri (1.1) and Tennessee (1.0), suffered from large losses of jobs in farming and closely related processing and marketing industries.

Although agricultural wholesale and retail trade industries may generate jobs in most nonmetro areas, employment growth in these industries depends on population increases and subsequent expansion of consumer markets. Agricultural wholesale and retail industries most likely cannot provide significant job growth in sparsely settled areas that experience little or no population expansion. Population losses in nonmetro areas of North Dakota (-13.1 percent), South Dakota (-2.3 percent), and Iowa (-7 percent) help explain the low agricultural sector job growth in these States during 1975-96. Conversely, nonmetro population increases in California (62.9 percent) and Idaho (32.1 percent), coupled with small losses of farm jobs, yield a peripheral job gain to farm job loss ratio in these States of 38.3 and 57.5, respectively. Texas, where nonmetro population increased 22 percent, had a job gain/loss ratio of 6.8, almost equal to the job gain/loss ratio of 6.9 for these industries in metro areas of the Nation.

Peripheral Farm-Related Industries Offer Job Growth...

Job growth in many nonmetro areas, which in the past relied primarily on farming for jobs, may now rest with industries only remotely related to agriculture. Agricultural wholesale and retail trade industries, which provide the final linkage between farmer and consumer, have been the principal source of new farm-related jobs in nonmetro areas during the past 20 years. In some nonmetro areas, population growth rates cannot increase the size of consumer markets needed to support wholesale and retail job gains to offset the number of jobs lost in farming and its closely related industries.

...as Farm Jobs Continue To Dwindle

Farm production has suffered large employment losses from long-term trends in farm consolidation and increases in productivity that reduced labor requirements needed to

Table 3

Jobs gained in industries peripheral to agriculture compared with jobs lost in farming and its closely related industries, 1975-96

Most of the top 15 States in which farm production jobs comprised a large percentage of total nonmetro employment gained few jobs in peripherally related farm industries to replace farm jobs lost

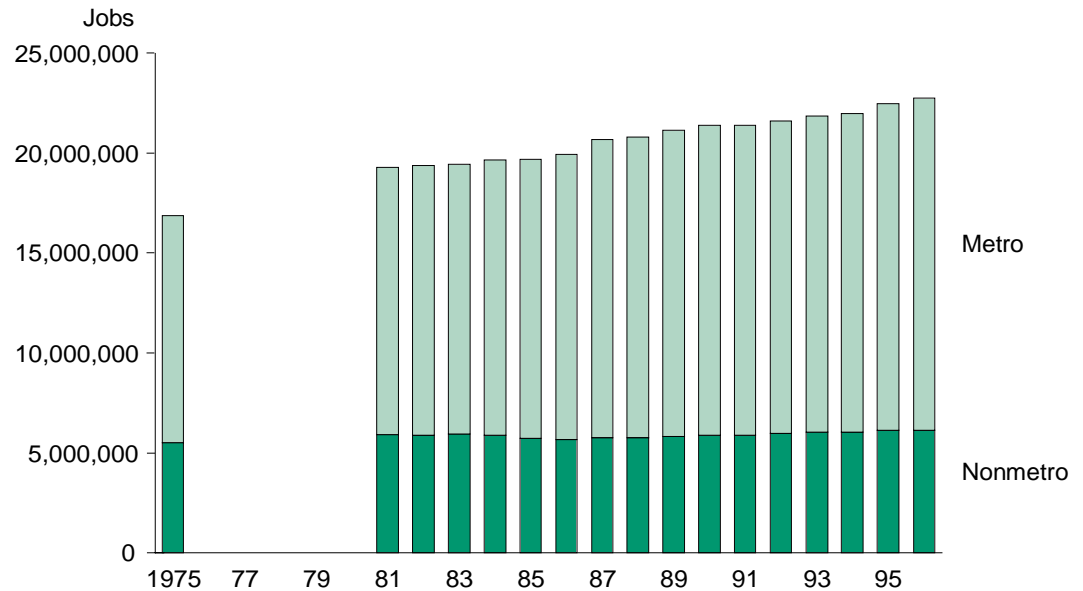
State/area	Farm production share of total nonmetro employment, 1975	Ratio of peripheral job gain to farm job loss ¹
	Percent	Ratio
U.S. nonmetro	14.2	1.9
Top 15 States:		
North Dakota	26.4	.5
South Dakota	25.0	.7
Nebraska	21.9	2.4
Iowa	20.6	.6
Texas	20.4	6.8
Minnesota	20.4	1.3
Missouri	20.3	1.1
Arkansas	18.2	1.2
Wisconsin	17.8	2.1
Kansas	17.1	2.2
Kentucky	16.8	2.5
Oklahoma	16.5	3.7
Tennessee	15.9	1.0
California	15.6	38.3
Idaho	15.0	57.5

¹Ratio of peripheral farm-related job gain to loss of jobs in farming and closely related sectors.

Source: Calculated by ERS using U.S. Department of Commerce data.

produce agricultural goods. These trends are likely to continue, placing farm production in a position unlikely to generate nonmetro jobs. Jobs in closely related agricultural input industries will decrease along with the decline in farm production employment. These trends are largely responsible for the declining nonmetro share of farm and farm-related jobs (fig. 1). Processing of agricultural products to add value to the region's commodities may be a source of new jobs that build upon the agricultural base in nonmetro counties, but as evidenced during 1975-96, such processing industries lost more than 100,000 jobs. Still, some rural locations may add jobs through the development of value-added agricultural operations. However, sustained employment growth in processing industries may depend on the ability to penetrate new markets through expanded distribution of existing goods or development of new products. [Alex Majchrowicz, 202-694-5355, alexm@ers.usda.gov]

Figure 1

Farm and farm-related employment, 1975-96*Nonmetro areas account for a declining share of all farm and farm-related jobs*

Note: Complete data are not available for 1976-80.

Source: Calculated by ERS using U.S. Department of Commerce data.

Farm and Farm-Related Employment

Farm and farm-related employment includes jobs not only in farm production but also in processing, marketing, and input supply industries (see appendix, "Two Methods of Measuring Farm-Linked Employment"). Farm and farm-related industries are identified as those having generally 50 percent or more of their national workforce employed in providing goods and services necessary to satisfy the final demand for agricultural products. An exception to this criterion is indirect agribusinesses, in which percentages range between 32 and 50 percent. In this article, we classify farm-related industries into those closely related to farming (agricultural services, forestry, and fishing; agricultural inputs; and processing and marketing of agricultural goods) and industries peripherally related to farming (wholesale and retail trade of agricultural products and indirect agribusiness). Nonfarm employment estimates in this article are based on the 1996 County Business Patterns file released by the Bureau of the Census and subsequently enhanced to impute values for confidential data not published by the Bureau. Data on farm proprietors and wage and salary jobs in farm production, as well as nonfarm proprietors, government employment, and railroad workers, are not included in the County Business Patterns. Employment for these excluded groups was obtained from the Bureau of Economic Analysis, U.S. Department of Commerce. Employment data on nonfarm proprietors, available only for major industrial divisions (one-digit Standard Industrial Classification (SIC) level), were distributed among farm-related industries (two-, three-, and four-digit SIC levels) based on the proprietor's share of total employment in the division in which the farm-related industry is classified. The percentage of proprietor employment in every industrial division was determined for each county. These percentages were applied to wage and salary employment in farm-related industries in the county.

